

## Final Review 6 '0910

- 1) Write an equation for each table below. Don't forget to check your equation.

X	Y
1	3
2	-1
3	-5
4	-9

X	Y
1	4
2	6
3	9
4	13.5

X	Y
1	12
2	36
3	108
4	324

- 2) A rubber ball rebounds to 75% of the height from which it is dropped.
- How high is the first bounce if the ball is dropped from a height of 300 cm?
  - Write an equation that generates the heights of the bounces.

- 3) Use the properties of exponents to rewrite the expression.

a)  $(x^4y^4)^2$

b)  $6(2x^4y)^2$

c)  $(2x^4)^3(2x^4)^2$

d)  $(x(yz)^2)^3$

e)  $\frac{6x^9}{5x^4}$

f)  $\frac{24x^5}{8x^5}$

g)  $\frac{(2x)^{-2}}{(2x)^2}$

h)  $(x^{-2})(x^5)$

- 4) You charge \$800 on a credit card that charges interest at a rate of 1.8% every month.
- Write an equation to model this situation. Define your variables.
  - If you make no payments, how much money will be owed after 9 months?
  - If you make no payments, how much money will be owed after 2 years?
  - How much time has passed if the balance due is \$1,500?